

WOKINGHAM

METEOROLOGICAL

DATA

Wokingham Climatological Station, Emmbrook, Berkshire.

Lat/Long 51°25'N 00°51'W NGR (SU)798701 Altitude 46m ASL.

Monthly Means and Totals

APRIL 2021

Temperature (°C)	Anomaly	Rank in the past 140 years
Mean maximum	13.5	-1.3 69 th highest
Mean minimum	1.2	-3.5 3 rd lowest
Daily mean	7.3	-2.4 14 th lowest
Highest maximum	19.4	on 20 th Lowest maximum 7.8 on 10 th
Highest minimum	7.7	on 1 st Lowest minimum -2.6 on 7 th
Mean grass minimum	-2.5	-3.5 Lowest grass minimum -7.6 on 7 th
Mean earth @30 cm	9.4	-0.8 Earth @100 cm 9.2 -0.3
Frost duration (hrs)	55.5	Rain duration (hrs) 16.6
Rainfall total (mm)	15.8	33 % 15 th lowest
Highest daily fall	11.1	on 28 th Highest rate mm/hr 6 on 28 th
Number of: Dry days (<0.2mm)	27	Wet days (>0.9mm) 2 days ≥5mm 1
Sunshine total (hrs) 225.1	Daily mean 7.50	132% Sunniest day 14.1 on 24 th
N° days with: Air frost 13	Ground frost 22	Snow falling 4 Snow lying 1
Thunder 0	Hail ≥5mm 0	Small hail/ice 2 Fog @09 0 Nil sun 1
Pressure MSL: Mean @09 GMT, mbar 1023.9	+8.9 Highest 1034.8	on 15 th Lowest 1004.6 on 28 th
Relative humidity : Mean (%) 67.5	Lowest 21 on 5 th	Water vapour (g/kg), mean at 09 and 15 GMT 4.3, 4.0
Overall mean wind speed (mph) 5.5	Windiest day 9.3 on 5 th	Max gust 35 on 11 th
Wind direction (days) N 3 NE 16 E 2 SE 0 S 0 SW 2 W 4 NW 3		
Least windy day (mph) 2.7	on 18 th	Calm; less than 0.5 mph (minutes) 1205

Anomaly = departure from 1991 to 2020 average (degrees C, percent and mbar).

Notes:

Cold but Mainly Dry and Very Sunny

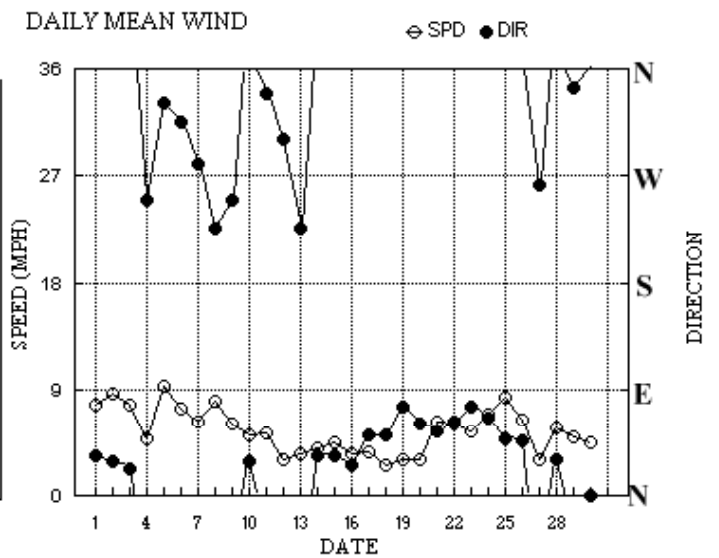
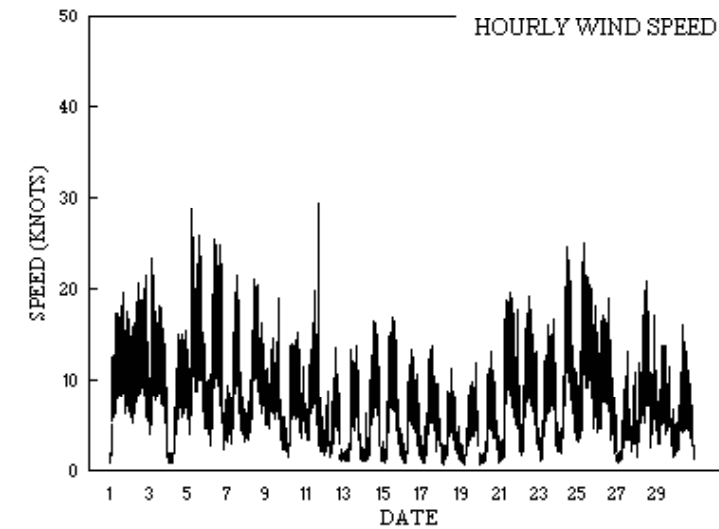
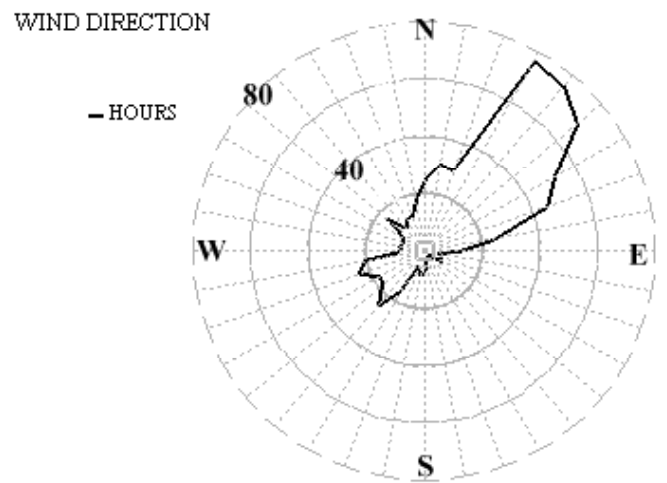
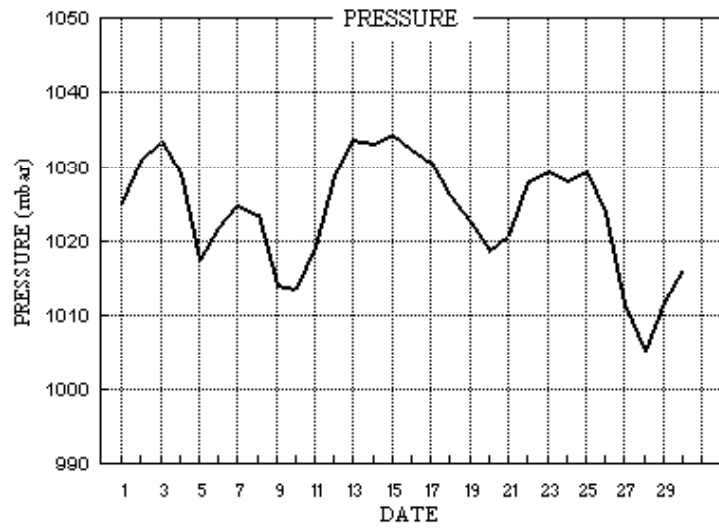
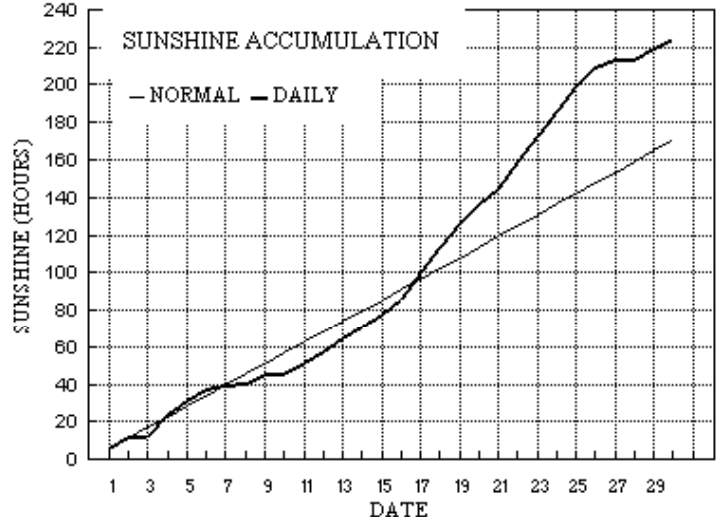
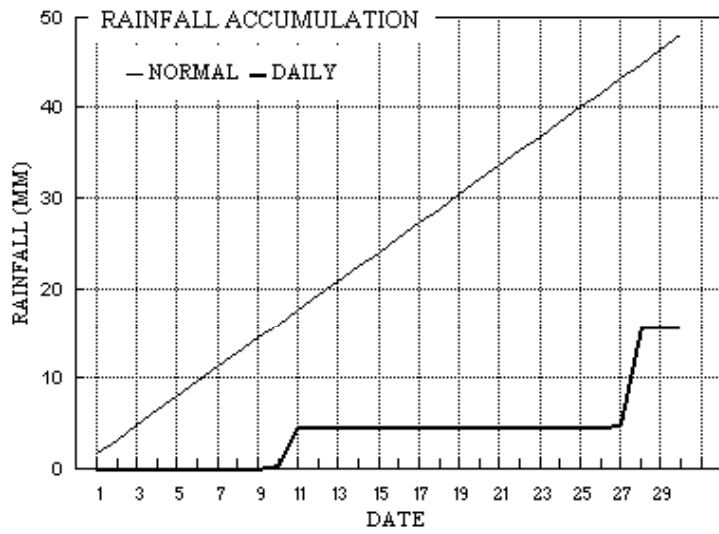
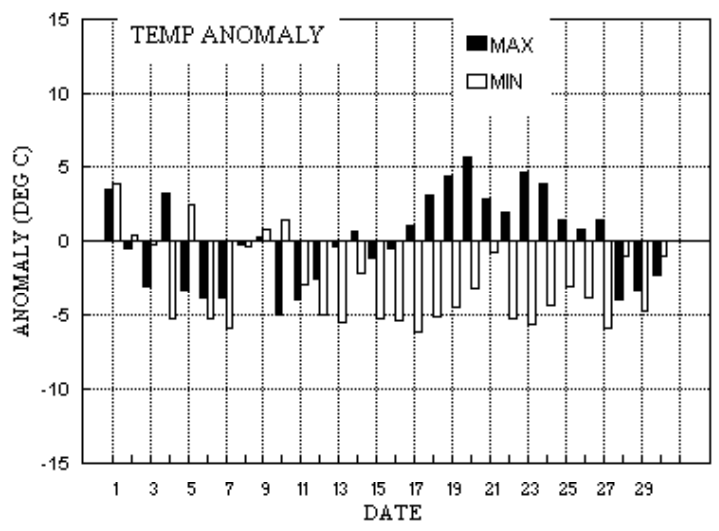
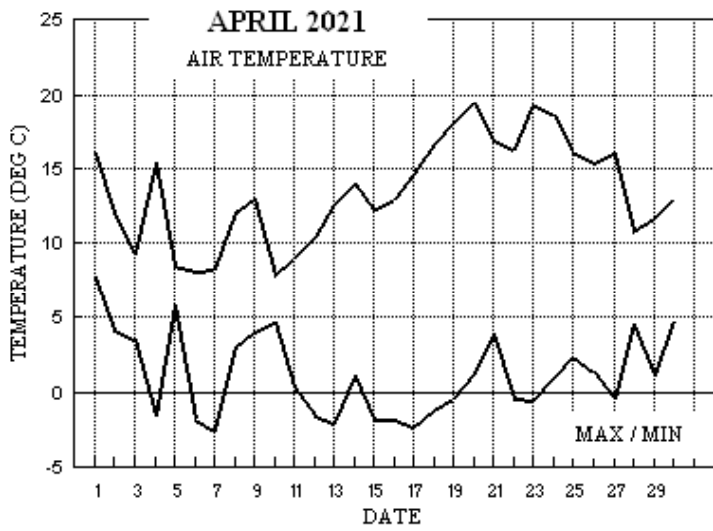
Temperature: The daily mean this April is lowest since 1989, despite the mean maximum being lowest only since 2016. The mean minimum, however, at just 1.2°, is lowest for any April since 1917, which, together with 1892, had a mean minimum of 1.1°, and are equal lowest in 140 years. The mean grass minimum of -2.5° is lowest for April in the past 42 years, the previous lowest being -2.3° in 1984. The number of days with air frost is highest for April since before 1956, and with ground frost, since 1954, both being 10 days more than their medians. The duration of air frost is 39.9 hours above average and most for any April in the past 40 years. The highest max is 1.3° below the median and the lowest max is equal to its median. The highest min is 2.1° below the median and the lowest min is 0.7° below its median. Earth temperature at 30cm and at 1 m depth are a little below average. Anomalies for daily max were above +4° on the 19th and 20th, and exceeded -4° on the 10th and 28th, with extreme values of +5.6° on the 20th and -5.0° on the 10th. Anomalies for daily min exceeded -5° on the 4th, 6th, 7th, 12th, 13th, 15th to 18th, 22nd, 23rd and 27th, and failed to reach +4° on any day, with extreme values of -6.1° on the 17th and +3.8° on the 1st. **Rainfall:** This has been a dry April, only 0.5 mm outside the very dry category, but in recent years 2017, 2011 and 2007 were drier. Significant rain fell on just 2 days, the 11th and 28th, with a 14 day dry spell ending on the 9th and another of 16 days on the 27th, in fact there were only 3 wet days in the 44 day period 15th March to 27th April, giving a total of just 10.1 mm. Daily rainfall accumulation compared with normal was 16 mm in deficit by the 10th, increasing to 38 mm by the 27th, but ending the month 32 mm in deficit. Snow fell on the 5th, 6th, 11th and 12th, making this the equal snowiest April with 2000 and 1989 since 1986. Snow lay 2 cm deep at 09 GMT on the 12th, only the third April day with snow lying at 09 GMT in the past 46 years. There was no thunder this April, but ice pellets fell on the 5th and snow pellets on the 11th. **Sunshine:** This has been a very sunny April with around 30 % above average sun, but in this millennium, 2007, 2011 and 2020 were all sunnier, 2020 being the sunniest in 46 years, and probably in over 100 years. The 10 day period to the 26th was outstandingly sunny, giving a total of 123.3 hours, 86 % of the maximum possible. Dull days having less than 20 % of the maximum were the 3rd, 7th, 8th, 10th and 28th. **Wind:** This has not been a windy April, the mean speed is 1.3 mph below average and is just 0.1 mph above the lowest on record, held jointly by 2020, 2007 and 1997. The month's windiest day is 3.6 mph below average, and the highest gust is 6 mph below average. NE'ly winds dominated this April, being the mean direction on 16 days. Up to the 11th daily mean speeds were mainly moderate, but were fresh on the 5th, then from the 12th mainly light, but moderate from 21st to 25th. Daily mean direction was between N and E, except between N and W on 5th to 7th, 11th, 12th and 29th, and between W and S on 4th, 8th, 9th, 13th and 27th. **Humidity:** The mean relative humidity is 6.1% below normal and lowest for April in the past 24 years. **Pressure:** The mean air pressure at 0900 GMT is highest for any April in the past 46 years, 0.4 mbar above the previous highest in 2017 and 2007.

Table 1. Mean anomalies (max, min, rain, sun) for specified periods.

From the 1 st to the 10 th				From the 11 th to the 20 th				From the 21 st to the 30 th			
-1.3°	-0.8°	2%	81%	+0.6°	-4.5°	27%	160%	+0.7°	-3.6°	70%	155%

B J Burton FRMetS. Hon. Met. Officer to Wokingham Town Council.

Wokingham climatological graphs for April 2021



Month: APRIL 2021

Date	Max C	Min C	Rain mm	Grass Min	30cm C	100cm C	Sun hrs	Frost hrs	pp09 mbar	Af Gf	Sf Sl	Th Ha	Ic Fg	Vec mean ddd ff sp	Max gust ddd gg HHhh	High hr ddd ff	Rain HH hrs						
1	16.0	7.7	0.0	4.0	9.9	8.8	6.0	0.0	1025.0	0 0 0 0	0 0 0 0	0 0 0 0	35	6.6	6.7	47	20	1744	35	9	10	0.0	
2	12.0	4.2	0.0	2.4	10.1	9.0	6.0	0.0	1030.8	0 0 0 0	0 0 0 0	0 0 0 0	30	7.5	7.6	18	22	2013	19	11	15	0.0	
3	9.2	3.5	0.0	-0.6	10.1	9.2	0.7	0.0	1033.5	0 1 0 0	0 0 0 0	0 0 0 0	23	6.7	6.7	28	23	0452	21	9	14	0.0	
4	15.3	-1.6	tr	-4.7	9.6	9.3	11.8	5.1	1029.1	1 1 0 0	0 0 0 0	0 0 0 0	250	4.2	4.3	241	16	2232	243	8	20	0.1	
5	8.5	5.8	tr	2.8	9.7	9.3	7.4	0.0	1017.5	0 0 1 0	0 0 1 0	0 0 1 0	330	6.8	8.1	306	29	0511	336	13	05	0.1	
6	8.1	-1.9	tr	-5.7	9.0	9.3	5.7	6.3	1021.8	1 1 1 0	0 0 0 0	0 0 0 0	315	5.7	6.5	320	26	0811	310	11	12	0.3	
7	8.2	-2.6	tr	-7.6	8.2	9.3	2.3	7.2	1024.7	1 1 0 0	0 0 0 0	0 0 0 0	279	5.0	5.5	305	22	1237	287	10	12	0.0	
8	12.1	3.0	tr	1.3	7.9	9.1	1.2	0.0	1023.5	0 0 0 0	0 0 0 0	0 0 0 0	225	6.9	7.0	230	21	0943	224	11	13	0.0	
9	12.9	4.0	tr	0.2	8.4	8.9	4.7	0.0	1014.0	0 0 0 0	0 0 0 0	0 0 0 0	250	3.5	5.3	322	19	1625	323	9	16	0.0	
10	7.8	4.6	0.3	2.3	8.8	8.8	0.0	0.0	1013.5	0 0 0 0	0 0 0 0	0 0 0 0	30	4.3	4.5	52	15	1635	21	7	14	1.4	
11	9.0	0.3	4.3	-3.0	8.5	8.9	6.2	0.2	1019.2	0 1 1 0	0 0 1 0	0 0 1 0	338	3.6	4.7	309	30	1649	332	8	10	3.8	
12	10.4	-1.6	0.0	-5.9	8.2	8.8	5.6	5.4	1028.6	1 1 1 1	0 0 0 0	0 0 0 0	300	1.1	2.7	269	14	1512	299	6	14	0.0	
13	12.6	-2.1	tr	-5.6	8.0	8.8	6.9	6.7	1033.7	1 1 0 0	0 0 0 0	0 0 0 0	226	2.5	3.1	230	14	1556	214	8	16	0.0	
14	13.9	1.1	0.0	-2.9	8.3	8.7	7.0	0.1	1033.3	0 1 0 0	0 0 0 0	0 0 0 0	35	3.2	3.6	21	17	1409	30	7	14	0.0	
15	12.2	-1.8	tr	-5.9	8.4	8.7	6.5	4.4	1034.6	1 1 0 0	0 0 0 0	0 0 0 0	35	3.8	3.9	354	17	1219	36	7	09	0.0	
16	12.9	-1.8	0.0	-6.0	8.4	8.7	8.3	5.7	1032.5	1 1 0 0	0 0 0 0	0 0 0 0	27	2.8	3.2	60	14	1225	7	5	10	0.0	
17	14.6	-2.3	0.0	-6.6	8.4	8.7	13.8	5.7	1030.6	1 1 0 0	0 0 0 0	0 0 0 0	52	2.8	3.3	57	14	1412	44	6	10	0.0	
18	16.6	-1.2	0.0	-5.0	8.6	8.7	13.5	3.0	1026.0	1 1 0 0	0 0 0 0	0 0 0 0	51	1.7	2.3	344	11	1328	63	4	12	0.0	
19	18.0	-0.4	0.0	-3.9	8.9	8.8	13.3	1.7	1022.6	1 1 0 0	0 0 0 0	0 0 0 0	75	0.9	2.8	146	12	1843	188	6	19	0.0	
20	19.4	1.2	0.0	-2.2	9.5	8.9	10.0	0.0	1018.6	0 1 0 0	0 0 0 0	0 0 0 0	61	2.1	2.7	68	13	1307	53	5	13	0.0	
21	16.9	3.9	0.0	0.2	10.0	9.1	8.0	0.0	1020.6	0 0 0 0	0 0 0 0	0 0 0 0	55	5.4	5.5	63	20	1318	70	9	13	0.0	
22	16.3	-0.5	0.0	-5.0	10.2	9.2	13.9	1.3	1027.8	1 1 0 0	0 0 0 0	0 0 0 0	63	5.1	5.3	65	19	1344	60	9	13	0.0	
23	19.3	-0.6	0.0	-5.2	10.2	9.4	13.8	1.4	1029.4	1 1 0 0	0 0 0 0	0 0 0 0	76	4.2	4.7	63	17	1936	64	7	17	0.0	
24	18.5	0.9	0.0	-3.7	10.3	9.5	14.1	0.0	1028.0	0 1 0 0	0 0 0 0	0 0 0 0	66	5.9	6.0	65	25	1230	63	11	12	0.0	
25	16.1	2.3	0.0	-2.2	10.6	9.7	12.2	0.0	1029.4	0 1 0 0	0 0 0 0	0 0 0 0	48	7.1	7.3	62	25	0811	59	11	09	0.0	
26	15.4	1.4	0.0	-2.9	10.8	9.8	10.7	0.0	1023.8	0 1 0 0	0 0 0 0	0 0 0 0	47	5.4	5.6	80	19	1441	50	8	09	0.0	
27	16.0	-0.5	0.1	-4.4	10.9	10.0	3.7	1.3	1011.4	1 1 0 0	0 0 0 0	0 0 0 0	262	0.2	2.7	271	13	1304	258	5	13	0.3	
28	10.8	4.5	11.1	-0.2	11.0	10.1	0.1	0.0	1005.1	0 1 0 0	0 0 0 0	0 0 0 0	31	4.6	5.0	90	21	1402	24	8	15	10.5	
29	11.7	1.1	tr	-1.8	10.4	10.1	6.2	0.0	1011.7	0 1 0 0	0 0 0 0	0 0 0 0	343	4.0	4.3	2	14	0952	3	7	08	0.0	
30	13.0	4.8	tr	3.0	10.4	10.1	5.5	0.0	1016.0	0 0 0 0	0 0 0 0	0 0 0 0	1	1.5	3.9	344	16	1147	353	7	11	0.1	
Total			15.8				225.1	55.5															16.6
Mean	13.5	1.2		-2.5	9.4	9.2	7.50	1.9	1023.9					20	2.3	4.8							
Anom	-1.3	-3.5	33%	-3.5	-0.8	-0.3	132%																+8.9
Daily mean		7.3																					
Anom		-2.4																					

Number of days with:

Air frost = 13 Ground frost = 22 Nil sun = 1
Snow falling = 4 Snow lying = 1 Thunder = 0
Hail=>5mm = 0 Hail<5mm or ice = 2 Fog at 09GMT = 0

Abbreviations.

Max/min = highest and lowest air temperature at 1.2m in 24 hour period ending at 09 GMT

Rain = total rainfall and melted snowfall in 24 hour period ending at 09 GMT, millimetres. (Tr = trace, <.05mm).

Grass min = Lowest overnight temperature at grass tip level.

Sun = hours of bright sunshine, measured electronically. Frost = Number of hours with air temp below 0 deg C.

pp09 = Air pressure corrected to mean sea level at 0900 GMT, millibars.

Af = Air frost. Gf = Ground frost. Sf = Snow falling. Sl = Snow lying at 09 GMT.

Th = Thunder. Ha = Hail =>5mm. Ic = Hail <5mm or ice. Fg = Fog at 09 GMT.

Vec mean = 24 hour mean wind vector, ddd = direction in degrees from true north, ff = speed in knots.

Sp = 24 hour mean wind speed in knots.

Max gust = Highest gust in 24 hours, gg = speed in knots, HHhh = Time, hours and minutes, GMT.

High hr = Highest hourly mean wind, HH = hour commencing. Rain Hrs = Duration of rain, 24 hours to 09 GMT. Excludes snow/hail.

30cm and 100 cm are earth temperatures at those depths, read at 09 GMT.

Maximum daily rain rate in mm/hr

All temperatures in degrees Celsius.

Anomaly - Departure from the 1991 to 2020 climatological average

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 0900 GMT for APRIL 2021

Date	VV	N	dd	ff	gg	TT	Td	Td	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Ch	shs	NCh	shs	NCh	shs	Date	Remarks
1	58	7	04	07	17	9.8	6.7	81	6.0	1025.0	1	015	05	2	2	7	6	4	7	/	87711						1	/Ac62 EI hz lyr
2	81	7	03	07	19	6.6	0.3	64	3.8	1030.8	1	014	01	2	2	7	5	5	/	/	87625						2	
3	68	8	02	10	18	6.7	1.2	68	4.1	1033.5	1	009	02	2	2	8	5	5	/	/	88625						3	
4	63	1	25	02	07	6.1	1.6	73	4.2	1029.1	7	011	03	0	0	1	1	4	0	1	81818						4	1Ci80 COTRA Cu fra
5	80	7	31	09	23	6.8	-1.8	54	3.3	1017.5	1	014	15	2	2	6	8	6	0	1	82833	85656				5	3Cs75 COTRA Cu med jpNE&E vv50k exNE	
6	86	3	32	10	26	3.2	-3.2	63	3.0	1021.8	4	000	03	0	0	3	2	5	0	0	83825					6	Cu med	
7	84	7	29	07	15	4.1	-4.4	54	2.7	1024.7	1	007	03	1	1	7	5	7	/	/	87650					7		
8	84	7	23	09	16	8.1	-0.1	56	3.7	1023.5	8	004	21	6	2	7	5	6	/	/	84630	87640				8		
9	86	7	23	08	15	9.9	3.6	65	4.9	1014.0	4	000	03	2	2	1	8	5	0	1	81825	87075				9	1Sc56 COTRA Cu hum Halo 22° part	
10	68	8	05	07	11	6.9	3.2	77	4.7	1013.5	4	000	61	6	2	7	5	4	2	/	87618	88458				10	Pptn v slt	
11	84	3	36	08	14	6.2	-1.4	58	3.4	1019.2	2	016	03	1	1	1	2	6	3	0	81830	83360				11	Cu med	
12	56	8	03	01	03	1.4	1.1	98	4.0	1028.6	2	010	22	7	2	7	5	2	/	/	86703	88613				12	Sn ly 2cm 80% Thaw	
13	82	2	26	03	06	8.1	-1.7	50	3.3	1033.7	1	005	03	0	0	1	8	6	0	1	81835					13	1Sc56 2Ci80 Cu hum	
14	58	4	06	02	04	9.2	3.2	66	4.7	1033.3	0	002	05	1	1	2	5	7	3	0	82650	83357				14		
15	86	1	05	07	15	8.5	0.5	57	3.8	1034.6	4	000	03	0	0	1	1	5	0	1	81827					15	1Ci80 Cu hum	
16	67	6	02	04	10	6.1	3.4	83	4.7	1032.5	1	003	03	1	1	6	1	4	0	0	86812					16	Cu hum	
17	88	1	05	05	09	9.2	-2.7	43	3.0	1030.6	8	005	02	0	0	0	0	9	0	1	81075					17		
18	65	5	04	02	05	9.6	2.5	61	4.5	1026.0	7	003	03	2	2	1	1	5	3	1	81825	85075				18	1Ac67 COTRA Cu fra	
19	57	0	35	02	05	10.2	3.5	63	4.8	1022.6	8	006	05	0	0	0	0	9	0	0						19		
20	61	1	03	02	05	11.6	4.1	60	5.0	1018.6	8	004	02	0	0	0	0	9	0	1	81080					20	COTRA	
21	57	4	04	07	16	13.2	6.8	65	6.1	1020.6	2	012	05	1	1	1	1	5	0	1	81828	84075				21	Cu hum Sky turbid	
22	63	1	05	06	14	9.6	2.5	61	4.5	1027.8	1	008	03	0	0	1	1	5	0	1	81825					22	1Ci81 COTRA Cu fra	
23	62	0	07	07	12	11.5	3.8	59	4.9	1029.4	0	000	02	0	0	0	0	9	0	0						23		
24	67	2	07	09	15	13.3	4.2	54	5.0	1028.0	0	000	03	0	0	0	0	9	0	4	82075					24		
25	82	4	05	09	25	10.6	3.6	62	4.8	1029.4	1	002	01	1	1	4	5	0	1	84625						25	1Ci80 COTRA	
26	82	6	03	08	15	7.3	-0.2	59	3.7	1023.8	8	006	01	2	2	4	5	0	1	84628	83080					26	COTRA	
27	66	7	23	03	06	10.3	2.6	59	4.6	1011.4	7	016	03	1	1	7	0	9	7	/	82358	87359				27		
28	57	8	02	08	17	8.4	5.3	81	5.6	1005.1	5	011	21	6	2	4	5	4	7	/	81715	84645	88358			28		
29	78	2	36	06	14	8.8	1.7	61	4.3	1011.7	2	007	03	0	0	2	8	5	0	0	82825					29	1Sc56 Cu med	
30	80	6	04	04	10	7.8	1.9	66	4.3	1016.0	2	004	15	2	2	3	8	6	7	/	81830	83650	85360			30	Cu med jpE	

Mean vis = 27.9 km

Mean cloud = 4.4 55%

Mean wind speed = 6.0 kn

Mean gust = 13 kn

Mean TT = 8.3 °C

Mean TdTd = 1.7 °C

Mean RH = 64.0 %

Mean r = 4.3 g/kg

Mean PPP = 1023.9 mbar

See appendix 2 below for full code details

VV = Visibility code (Code FM12-4377)

N = Total cloud amount, oktas

dd = Direction from which wind is blowing, tens of degrees true

ff = 10 minute mean wind speed, knots

gg = Highest gust in past hour, knots

TT = Air temperature at 1.2 m, deg Celsius

TdTd = Dew point temperature at 1.2 m, deg Celsius

RH = Relative humidity at 1.2 m

r = Humidity mixing ratio at 1.2 m, g/kg

PPP = Air pressure reduced to sea level, mbar

a = Characteristic of pressure tendency (Code FM12-0200)

ppp = 3 hr pressure tendency, tenths of mbar

ww = Present weather code (Code FM12-4677)

W1, W2 = Past weather code (Code FM12-4561)- covers past 3 hours.

Nh = Amount of low cloud present, oktas

Cl = Type of low cloud (Code Fm12-0513)

h = Height of low cloud (Code FM12-1600)

Cm = Type of medium cloud (Code FM12-0515)

Ch = Type of high cloud (Code FM12-0509)

8 groups. 8 = indicator for cloud detail

N = Amount of cloud, oktas

C = Type of cloud (FM12-0500)

hshs= Height of cloud (FM12-1677)

Remarks : COTRA = persistent condensation trails present

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 1500 GMT for APRIL 2021

Date	VV	N	dd	ff	gg	TT	Td	Td	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Cl	NCh	shs	NCh	shs	NCh	shs	Date	Remarks
1	70	0	05	07	18	15.8	7.6	58	6.4	1025.0	7	005	02	0	0	0	0	0	9	0	0	0	0	0	0	0	1	Sky turbid	
2	82	1	02	11	18	11.7	2.4	53	4.4	1030.1	6	008	02	0	0	1	5	6	0	0	8	1635					2		
3	81	7	02	10	18	9.1	1.8	60	4.2	1032.5	7	011	02	2	2	7	5	5	/	/	87628						3		
4	70	5	25	06	14	14.9	3.1	45	4.7	1022.9	8	035	03	1	1	0	0	9	0	4	85080						4	COTRA	
5	89	1	36	09	26	8.2	-10.1	26	1.7	1020.2	8	002	01	0	0	1	4	7	0	0	81856						5	1Sc56 Cu hum	
6	80	7	36	07	22	3.7	-1.6	68	3.3	1019.6	5	005	26	8	2	4	8	6	6	/	82835	83657	87359			6	jp all quads vv50k ex p Sn ly 0		
7	86	7	31	09	19	5.6	-5.1	46	2.6	1024.7	8	001	02	2	2	7	5	6	/	/	85645	87650				7			
8	86	8	24	09	21	10.8	2.9	58	4.6	1019.7	7	020	02	2	2	8	8	6	/	/	84835	88645				8	Cu hum		
9	86	7	24	06	14	12.6	2.7	51	4.6	1011.8	7	011	03	2	2	7	8	6	/	1	83838	85650	86075			9	Cu med		
10	62	8	02	07	15	7.0	3.4	78	4.8	1012.6	8	004	61	6	6	7	8	5	2	/	83820	86635	88545			10	Cu med		
11	70	4	29	04	15	7.9	-3.3	45	2.9	1020.9	1	009	25	8	1	3	3	6	6	0	81935	82840				11	1Sc50 2Ac62 jpN, W&S vv60k ex p		
12	86	3	27	06	12	9.1	-3.1	42	3.0	1029.7	8	001	15	1	1	3	8	6	0	0	82845					12	2Sc56 Cu med jpN		
13	70	7	25	04	10	11.0	0.7	49	3.9	1031.7	8	011	25	8	2	4	2	7	6	/	84845	86357				13	Cu med jpS vv60k ex S		
14	82	7	05	06	17	11.8	-2.0	38	3.2	1032.1	8	002	02	2	2	5	8	7	6	/	82850	84656	86357			14	Cu med		
15	80	6	03	07	14	9.9	-0.3	49	3.6	1032.0	7	014	15	2	2	4	8	6	6	/	82845	83650	85358			15	Cu med jpE vv50k ex p		
16	83	5	02	06	13	10.1	-1.0	46	3.5	1030.0	7	016	02	1	1	5	4	6	0	0	81845	85650				16	Cu hum		
17	88	2	05	06	14	14.2	-2.7	31	3.1	1027.2	8	016	02	0	0	0	0	9	0	1	82075					17			
18	82	6	05	04	09	14.6	-2.8	30	3.1	1023.3	7	014	02	2	2	6	0	9	7	1	82363	86370				18	/Ci75		
19	62	1	02	05	09	17.5	2.7	37	4.6	1019.0	8	020	02	0	0	1	1	7	0	0	81850					19	Cu hum		
20	68	6	03	05	10	17.9	3.4	38	4.8	1016.3	7	012	02	1	1	2	2	7	6	1	82850	83358	85080			20	Cu med		
21	68	7	06	08	17	14.3	5.6	56	5.6	1021.5	1	003	02	2	2	7	8	6	/	/	83833	87640				21	Cu hum		
22	80	2	06	09	18	15.6	-0.6	33	3.6	1026.6	5	004	02	0	0	0	0	9	0	1	82081					22	COTRA		
23	75	6	10	07	15	18.4	-2.0	25	3.2	1026.5	7	014	03	1	1	0	0	9	0	1	86080					23			
24	80	1	08	09	23	18.3	3.0	36	4.6	1026.3	8	007	02	0	0	1	4	7	0	1	81850					24	1Sc50 1Ci75 Cu hum		
25	86	1	05	08	20	15.7	2.5	41	4.5	1027.0	8	016	02	0	0	1	1	6	0	1	81845					25	1Ci75 Cu hum		
26	81	6	03	08	19	15.1	1.3	39	4.1	1018.3	8	029	02	1	1	0	0	9	0	1	86080					26	COTRA		
27	68	7	30	05	10	14.9	2.4	43	4.5	1007.5	7	019	03	2	2	1	8	7	7	/	81850	83656	87358			27	Cu hum		
28	58	8	02	07	21	7.1	4.9	86	5.4	1006.9	1	016	61	6	6	4	5	6	2	/	81718	84630	88550			28			
29	82	6	33	03	10	10.9	-1.2	43	3.5	1012.3	7	002	15	8	2	3	8	6	6	/	82845	85358				29	2Sc56 Cu med jpNE		
30	70	5	34	06	12	12.5	0.9	45	4.0	1014.2	7	014	15	8	2	3	2	6	6	0	83845					30	1Ac57 2Ac62 Cu con jpNE, W&S vv60k ex p		

Mean vis = 35.0 km

Mean cloud = 4.9 61%

Mean wind speed = 6.8 kn

Mean gust = 16 kn

Mean TT = 12.2 °C

Mean TdTd = 0.5 °C

Mean RH = 46.5 %

Mean r = 4.0 g/kg

Mean PPP = 1022.3 mbar

See appendix 2 below for full code details

VV = Visibility code (Code FM12-4377)

N = Total cloud amount, oktas

dd = Direction from which wind is blowing, tens of degrees true

ff = 10 minute mean wind speed, knots

gg = Highest gust in past hour, knots

TT = Air temperature at 1.2 m, deg Celsius

TdTd = Dew point temperature at 1.2 m, deg Celsius

RH = Relative humidity at 1.2 m

r = Humidity mixing ratio at 1.2 m, g/kg

PPP = Air pressure reduced to sea level, mbar

a = Characteristic of pressure tendency (Code FM12-0200)

ppp = 3 hr pressure tendency, tenths of mbar

ww = Present weather code (Code FM12-4677)

W1, W2 = Past weather code (Code FM12-4561)-
covers past 3 hours.

Nh = Amount of low cloud present, oktas

Cl = Type of low cloud (Code Fm12-0513)

h = Height of low cloud (Code FM12-1600)

Cm = Type of medium cloud (Code FM12-0515)

Ch = Type of high cloud (Code FM12-0509)

8 groups. 8 = indicator for cloud detail

N = Amount of cloud, oktas

C = Type of cloud (FM12-0500)

hshs= Height of cloud (FM12-1677)

Remarks : COTRA = persistent condensation trails present

Wokingham Sunshine Hourly analysis	Hour	01-Apr	02-Apr	03-Apr	04-Apr	05-Apr	06-Apr	07-Apr	08-Apr	09-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr	16-Apr
2021	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.19	0.00	0.15	0.00	0.50	0.00	0.72	0.73
	6	0.00	0.00	0.00	0.36	0.00	0.84	1.00	0.00	1.00	0.00	0.68	0.00	1.00	0.86	1.00	1.00
	7	0.00	0.00	0.00	1.00	0.70	1.00	0.85	0.00	1.00	0.00	1.00	0.00	1.00	0.55	1.00	0.51
	8	0.00	0.01	0.00	1.00	0.52	0.79	0.02	0.06	1.00	0.00	0.87	0.00	1.00	0.88	0.99	0.18
	9	0.04	0.56	0.00	1.00	0.00	0.41	0.01	0.07	0.85	0.00	0.47	0.10	1.00	0.70	0.72	0.89
	10	0.00	0.58	0.00	1.00	0.00	0.77	0.00	0.50	0.24	0.00	0.16	0.43	0.96	0.85	0.63	0.74
	11	0.46	0.66	0.00	1.00	0.01	0.77	0.00	0.43	0.04	0.00	0.06	0.72	0.55	0.42	0.60	0.60
	12	1.00	0.98	0.00	1.00	0.55	0.51	0.00	0.10	0.01	0.00	0.38	0.67	0.01	0.57	0.27	0.92
	13	1.00	1.00	0.00	1.00	0.99	0.00	0.00	0.00	0.23	0.00	0.23	0.23	0.32	0.11	0.44	0.62
	14	1.00	1.00	0.02	1.00	0.98	0.08	0.03	0.00	0.07	0.00	0.63	0.37	0.05	0.03	0.01	0.35
	15	1.00	1.00	0.00	1.00	1.00	0.09	0.00	0.00	0.04	0.00	0.30	0.43	0.00	0.18	0.07	0.64
	16	1.00	0.19	0.19	1.00	1.00	0.26	0.00	0.00	0.00	0.00	0.42	0.92	0.26	0.40	0.00	0.24
	17	0.45	0.00	0.35	1.00	1.00	0.09	0.00	0.00	0.00	0.00	0.72	1.00	0.20	0.78	0.00	0.51
	18	0.00	0.00	0.13	0.48	0.64	0.12	0.00	0.00	0.00	0.00	0.14	0.73	0.03	0.62	0.00	0.38
	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot		5.96	5.99	0.69	11.84	7.41	5.73	2.32	1.15	4.66	0.00	6.23	5.59	6.87	6.95	6.46	8.31

Hour	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr	23-Apr	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr	30-Apr	Mean
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00
5	0.86	0.66	0.70	0.60	0.39	0.84	0.91	0.97	0.00	0.00	0.95	0.03	0.89	0.08	0.35
6	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.00	0.86	0.00	1.00	0.00	0.61
7	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.80	0.02	0.07	0.00	1.00	0.00	0.62
8	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	0.69	0.93	0.49	0.00	0.89	0.74	0.63
9	1.00	1.00	1.00	1.00	0.71	1.00	1.00	1.00	1.00	0.99	0.44	0.00	0.45	0.67	0.60
10	1.00	1.00	1.00	1.00	0.89	1.00	1.00	1.00	0.88	1.00	0.32	0.00	0.03	0.87	0.60
11	1.00	1.00	1.00	0.98	0.60	1.00	1.00	1.00	1.00	1.00	0.01	0.00	0.01	0.35	0.54
12	1.00	1.00	1.00	1.00	0.54	1.00	1.00	1.00	1.00	1.00	0.52	0.00	0.00	0.16	0.57
13	1.00	1.00	1.00	0.81	0.74	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.20	0.55	0.55
14	1.00	1.00	1.00	0.18	0.01	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.13	0.89	0.49
15	1.00	1.00	1.00	0.88	0.02	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.77	0.39	0.53
16	1.00	1.00	1.00	0.00	0.22	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.58	0.00	0.49
17	1.00	1.00	1.00	0.31	0.87	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.30	0.00	0.52
18	0.89	0.83	0.61	0.24	0.02	1.00	0.91	1.00	1.00	0.78	0.00	0.00	0.00	0.64	0.37
19	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.08	0.14	0.00	0.00	0.00	0.00	0.00	0.01
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot	13.75	13.48	13.32	10.00	7.99	13.93	13.83	14.05	12.18	10.72	3.65	0.04	6.24	5.48	224.83

APRIL 2021	T mn	Tx	Time	Tn	Time	RHmn	RH x	Time	RH n	Time	Tdmn	r mn	r x	Time	r n	Time	p mn	p x	Time	p n	Time	R tot
1	9.98	16.0	1418	5.3	2247	77.4	94.6	310	54.9	1418	6.0	5.8	6.7	1300	4.2	2324	1024.86	1029.1	2359	1020.1	3	0
2	7.12	12.0	1408	4.2	257	66.2	82.4	0	49.6	1402	1.1	4.0	4.6	1217	3.7	646	1030.58	1032.6	2359	1028.7	400	0
3	6.23	9.2	1333	1.7	2357	70.6	89.5	120	57.3	1440	1.2	4.0	4.4	1455	3.6	2357	1032.44	1034.1	902	1031.3	2345	0
4	7.16	15.3	1523	-1.6	517	71.6	96.8	553	39.3	1708	1.7	4.3	5.4	2227	3.2	517	1025.45	1031.4	7	1017.4	2342	0
5	5.56	8.5	1441	1.3	2348	54.1	89.8	234	20.7	1544	-3.9	3.0	5.3	0	1.3	1544	1019.32	1023.5	2213	1014.6	438	0
6	2.37	8.1	1232	-1.9	545	62.6	87.2	2353	30.4	1258	-4.5	2.7	3.4	1453	1.9	1302	1021.30	1023.3	2329	1018.6	1640	0
7	2.83	6.2	1432	-2.6	558	63.9	93.1	603	42.6	1118	-3.9	2.8	3.2	2308	2.3	1106	1024.42	1025.4	2242	1023.1	4	0
8	7.46	12.1	1213	3.0	437	63.7	78.8	2358	51.2	940	1.0	4.1	4.9	1140	3.1	204	1021.31	1025.4	3	1016.2	2351	0
9	7.92	12.9	1355	4.0	534	72.7	89.9	547	45.9	1442	3.0	4.7	5.4	847	4.1	1409	1013.56	1016.3	2	1011.5	1549	0
10	5.78	7.8	1359	2.5	2358	79.3	91.0	330	66.5	2316	2.4	4.5	5.0	1541	3.2	2319	1013.45	1015.5	2358	1012.3	1547	0.3
11	3.71	9.0	1235	-0.4	2356	71.2	95.9	2131	42.4	1606	-1.4	3.4	4.0	1905	2.8	1606	1020.32	1026.5	2356	1015.2	123	0.7
12	3.12	10.4	1557	-1.6	126	77.1	98.0	900	34.7	1624	-1.2	3.4	4.5	1107	2.6	1624	1029.29	1032.8	2355	1026.3	144	3.7
13	5.24	12.6	1154	-2.1	519	73.9	95.8	555	39.3	1156	0.4	3.9	5.0	1610	3.0	519	1032.71	1034.0	722	1031.5	1623	0
14	6.51	13.9	1056	-0.0	2357	66.4	96.3	611	34.8	1212	-0.1	3.7	4.9	1101	2.9	1510	1032.78	1033.9	2359	1031.8	1733	0
15	5.01	12.2	1310	-1.8	503	68.9	94.4	622	37.6	1321	-0.7	3.5	4.2	1009	3.0	1321	1033.26	1034.8	726	1031.6	1651	0
16	5.15	12.9	1530	-1.8	509	69.1	96.9	622	34.6	1519	-0.9	3.5	4.8	906	2.9	1519	1031.28	1032.6	9	1029.4	1613	0
17	6.67	14.6	1505	-2.3	520	58.8	94.9	604	26.2	1506	-2.2	3.2	3.9	1226	2.4	1024	1028.91	1031.2	601	1026.1	1710	0
18	7.47	16.6	1527	-1.2	527	60.8	96.0	607	24.9	1702	-1.0	3.5	4.7	902	2.6	1717	1024.92	1027.2	3	1023.1	1658	0
19	9.14	18.0	1508	-0.4	442	63.8	96.1	545	32.5	1509	1.6	4.2	5.2	1248	3.5	442	1021.03	1024.1	9	1017.8	1823	0
20	10.07	19.4	1351	1.2	458	66.6	93.2	510	33.0	1528	3.4	4.8	6.2	1041	3.8	458	1017.95	1019.2	45	1016.1	1548	0
21	9.75	16.9	1354	3.9	520	71.5	95.9	611	47.5	1656	4.4	5.2	6.4	1312	3.7	2358	1021.29	1025.7	2359	1018.5	41	0
22	7.94	16.3	1447	-0.5	510	60.7	94.3	557	28.6	1641	-0.3	3.7	4.6	1256	2.7	1928	1027.13	1028.9	2359	1025.6	0	0
23	9.22	19.3	1522	-0.6	455	62.6	97.6	543	22.9	1559	1.0	4.0	5.5	1152	2.9	1619	1028.14	1029.9	724	1026.0	1616	0
24	10.01	18.5	1440	0.9	441	60.7	93.0	535	32.7	1411	1.9	4.3	5.5	1346	3.6	221	1027.29	1028.7	0	1025.4	1705	0
25	8.82	16.1	1512	2.3	402	64.6	92.4	453	39.1	1441	2.0	4.3	4.9	1400	3.8	247	1027.83	1029.6	751	1025.2	1720	0
26	7.87	15.4	1505	1.4	453	61.1	85.6	2326	36.1	1625	0.3	3.8	4.6	1158	3.4	344	1020.92	1026.5	10	1015.7	2359	0
27	8.72	16.0	1241	-0.5	500	64.5	96.3	520	35.5	1332	1.7	4.3	5.4	1215	3.1	2343	1009.91	1015.8	0	1006.2	1808	0
28	6.94	10.8	1052	4.3	2356	81.5	95.3	2359	54.5	0	3.9	5.0	5.9	1126	3.8	0	1006.82	1009.7	2317	1004.6	847	10.9
29	6.84	11.7	1505	1.1	507	68.9	95.6	521	38.3	1505	1.0	4.1	5.0	34	3.2	1344	1012.07	1015.1	2329	1009.3	43	0
30	7.53	13.0	1424	3.0	2358	69.0	92.1	2359	39.4	1448	1.9	4.3	4.8	1032	3.5	1448	1015.34	1016.5	2220	1014.1	1517	0
Total																						15.6
Mean	6.94	13.38		0.68		67.5	92.96		39.09		0.66	4.01	4.96		3.12		1023.20	1025.98		1020.44		
Max	10.07	19.35		5.29		81.5	98.00		66.47		6.03	5.77	6.66		4.19		1033.26	1034.82		1031.82		
Min	2.37	6.23		-2.59		54.1	78.80		20.68		-4.51	2.70	3.24		1.32		1006.82	1009.66		1004.62		

Wokingham Automatic Weather Station
 AWS samples taken every 0.5 seconds
 x and n refer to maximum and minimum respectively

Readings taken at Wokingham Climatological Station, Emmbrook, Berkshire
Lat 51.425 N, Long 0.853 W, NGR (SU) 798701
Altitude 45 m ASL.

Tmn = 00 to 24 GMT mean air temperature at 1.2 m, deg C
 RHmn = 00-24 GMT mean relative humidity at 1.2 m, percent
 Tdmn = 00-24 GMT mean dew point at 1.2 m, deg C
 rmn = 00-24 GMT mean humidity mixing ratio, g/kg
 pmn = 00-24 GMT mean air pressure reduced to mean sea level, mbar
 Time = hours and minutes in GMT of extreme values

Temperature and humidity are from an aspirated Vaisala HMP45 unit
 Pressure is from a Setra CS100 sensor
 Data is logged on a Campbell Scientific CR10X measurement and control system

Appendix 1.

Explanation and definition of some of the terms used in the Wokingham Weather Reports.

Average: Generally refers to the 30 year climatological average, currently 1981 to 2010. This will be next updated in 2020. For some parameters, notably wind, the climatological average is not available, and if the word average is used in the context of wind, it refers to the average for the period for which data is held, namely 1988 to present.

For sunshine, there was a change, in July 1999, in the type of instrument used to detect sunshine amount, making the climatological average based on the old instrument of little use. In general, the new instrument produces higher values in the winter half year, and lower ones in the summer half, than the old type, due to a combination of faster reaction and higher sensitivity than the old type. The average used in this case is based on a theoretical equivalent 1981 to 2010 average, drawn from comparison with the Met Office published tables of departure from climatological average sunshine in the months since 2000 for their area 'Southern England'. Users of the Wokingham Monthly Weather reports should be aware of this, and regard anomalies for sunshine published therein as a guide only, until such time has elapsed since the introduction of the new instrument that a genuine average becomes available.

Mean: The mean of the data under discussion, often the monthly mean of daily data. The mean is obtained by summation of the individual values and dividing by the number of values. The term 'daily mean' in respect of temperature is defined as '(max + min) / 2'. A true daily 24 hour (00 to 24 GMT) mean temperature is available from the Automatic Weather Station (AWS), and is currently published on page 7 of the Wokingham Monthly Weather report, on the Wokingham Weather web site, page 1. <http://www.woksat.info/wwp1.html>

Anomaly: When a value is given for anomaly, this will have one of the following meanings:

- a): The departure of a mean from the current climatological average.
- b): The departure of a value on a particular day from the average for that day, (this need not be a climatological average).

When the word anomaly is used in respect of temperature, any values given are in °C. In respect of rainfall or sunshine, percent. In respect of wind, mph. In respect of pressure, millibars (hpa).

Categories: Reference may be made in the reports to 'categories'. Each category has a strict statistical range, as outlined below.

Temperature: The terms cold/mild are used in the winter half year, and cool/warm in the summer half. The term 'normal' is used when the individual mean (monthly, seasonal or annual) value is within 20 % of the median of all ranked values for that month/season/year.

Mild/warm: The value lies between 10 % and 30 % below the highest value in the ranked series.

Very mild/very warm: The value lies within 10 % of the highest value in the ranked series.

Cold/cool: The value lies between 10 % and 30 % above the lowest value in the ranked series.

Very cold/very cool: The value lies within 10 % of the lowest value in the ranked series.

Sunshine: The terms for sunshine are very sunny, sunny, normal, dull and very dull.

The definition of these terms follow the same rules as for temperature.

Rainfall: The terms for rainfall are very dry, dry, normal, wet and very wet.

The definition of the term 'normal' follows the same rule as for temperature and sunshine.

Wet: The value lies between 10 % and 30% of the highest value in the ranked series.

Very wet: The value lies within 10 % of the highest value in the ranked series.

Dry: The value lies between 10 % and 30 % above the lowest value in the ranked series.

Very dry: The value lies within 10 % of the lowest value in the ranked series.

Long-term: Mention may be made in the reports to the 'long-term'. The long-term record comprises a temperature/rainfall/sunshine data series compiled from records of various weather stations in the Wokingham area in the years prior to the establishment of the weather station at Emmbrook in 1976 together with data from this station.

In the case of monthly max, min and mean temperature and of rainfall total the series starts in 1882. For temperature extremes, the highest max and lowest min go back to 1904, and lowest max and highest min to 1913.

Rank: The word rank refers to the position of a value for a particular month/season/year in the ranked series, and may be expressed relative to either the highest or lowest value in the series. The central value in the ranked series is known as the **median**. This value may be different from the average of the whole series if the population is skewed. It can also be different from the climatological average which only refers to a 30 year period.

Month: Calendar month.

Season: Spring, March to May.

Summer, June to August

Autumn, September to November

Winter, December to February.

When discussing 'winter', if a single year is given this refers to the year in which the January/February fall.

Annual or Year: The calendar year, 1st January to 31st December.

The climatological day: runs from 0900 to 0900 GMT. The max temperature and rainfall read at 0900 hours are attributed to the previous day (thrown back), as is the duration of measurable rain. The min temperature and grass min read at 0900 hours are attributed to the day of reading. Pressure read at 0900 GMT, and the monthly mean pressure is the mean of the 0900 GMT readings. Sunshine data, wind data, rainfall rate data and 24 hour data from the AWS use the normal 00-24 GMT day.

Frost: An air frost day is recorded when the minimum temperature read at 0900 GMT on that day is -0.1°C or below. A ground frost day is recorded when the grass minimum temperature read at 0900 GMT on that day is -0.1°C or lower.

Duration of air frost is defined as the number of minutes that the AWS one minute average temperature is below 0.0°C , and the day runs from midnight to midnight.

Snow: A day with snow falling is triggered if snow falls at any time in the 24 hours from midnight on that day. A day with snow lying is entered if there is at least 50% snow cover at the 0900 GMT observation.

Snow depth is the depth of undrifted snow. Snow that collects in the raingauge funnel is melted and the amount recorded as rainfall.

Hail: A day of hail is recorded if hailstones 5 mm or more in diameter are observed or recorded on the hail pad in a 24 hour period starting at midnight.

A day of small hail is recorded if hailstones less than 5 mm diameter are observed or recorded in a 24 hour period starting at midnight. The term small hail also includes various other types of ice meteor such as ice pellets, snow grains and some types of snow pellets.

Fog: A day with fog is recorded if the horizontal visibility at 0900 GMT is below 1000 m.

Thunder: A day of thunder is recorded if thunder is heard in the 24 hour period from midnight on that day. The appearance of lightning without thunder being heard does not qualify as a thunder day.

Trace of rainfall: A trace of rain, entered as 'tr' in the daily log, is recorded if rain is observed to fall but is of insufficient quantity to collect in the raingauge, or if the amount of rain in the gauge is less than 0.05 mm.

Dry spell: A dry spell is defined as a period of 5 or more consecutive dry days.

Dry day: A dry day is one with less than 0.2 mm of rainfall.

Rain day: A rain day is one with 0.2 mm or more of rainfall.

Wet day: A wet day is one having 1.0 mm or more of rainfall.

Appendix 2.

Explanation and decode for code figures used in the Wokingham 0900 and 1500 GMT observations

VV : Visibility.

Code figures 00 to 50 are in km and tenths e.g. 01 = 0.1 km = 100 m, 33 = 3.3 km, 50 = 5.0 km

Code figures 60 to 80. Subtract 50 to obtain visibility in km. e.g. 56 = 6 km, 65 = 15 km, 77 = 27 km.

Code figures 81 to 89. Subtract 50 and add 5 for every one above 80. e.g. 83 = 45 km, 86 = 60 km.

Code figure 89 = visibility above 70 km.

N : Total cloud amount in okta (eighths of sky covered). 9 = sky obscured (e.g. by fog or snow)

dd : Wind direction in tens of degrees from true north. Wind is measured at a height of 10 m, and the direction is the mean over a period of 10 minutes ending at the observation time.

ff : Wind speed in knots, measured at 10 m, and is the mean over a period of 10 minutes ending at observation time.

gg : Wind gust in knots at 10 m. The highest gust in the 60 minutes up to observation time.

TT : Air temperature at 1.2m, degrees C and tenths.

TdTd : Dew point temperature at 1.2m, degrees C and tenths.

RH : Relative humidity at 1.2m, %.

r : Humidity mixing ratio (amount of water vapour per kg of air), grams and tenths.

PPP : Air pressure reduced to MSL, millibars and tenths.

a : Characteristic of pressure tendency during the past 3 hours.

Code figures 0 to 3, pressure higher than 3 hours ago, 5 to 8, pressure lower than 3 hours ago

Code figure 0 = Increasing then decreasing, pressure the same as or higher than 3 hours ago

1 = Increasing then steady or increasing more slowly

2 = Increasing steadily or unsteadily

3 = Decreasing or steady then increasing, or increasing then increasing more rapidly

4 = Steady, pressure the same as 3 hours ago

5 = Decreasing then increasing, pressure lower than 3 hours ago

6 = Decreasing then steady or decreasing more slowly

7 = Decreasing steadily or unsteadily

8 = Steady or increasing then decreasing, or decreasing then decreasing more rapidly

ppp : 3 hour pressure tendency in tenths of a millibar

ww : Present weather code figures, 00 to 99.

Present weather decode:

00 = Cloud development not observed or not observable

01 = Clouds generally dissolving or becoming less developed

02 = State of sky on the whole unchanged

03 = Clouds generally increasing or becoming more developed

04 = Visibility reduced by smoke, e.g. veldt or forest fires, industrial smoke or volcanic ashes.

05 = Haze, visibility reduced by extremely small dry particles (RH less than appx. 95 %)

06 = Widespread dust in suspension, not raised by the wind near the station at the time of the observation

07 = Dust or sand raised by the wind at or near the station at the time of the observation, but no well-developed dust whirls or sand whirls, and no duststorm or sandstorm seen: In marine environments, blowing spray at the station.

08 = Well-developed dust or sand whirls seen at or near the station during the preceding hour or at the time of the observation, but no duststorm or sandstorm.

09 = Duststorm or sandstorm within sight at the time of the observation, or at the station during the preceding hour

10 = Mist
11 = Patches of shallow fog not deeper than 2 metres on land
12 = More or less continuous shallow fog not deeper than 2 metres on land
13 = Lightning visible, no thunder heard
14 = Precipitation within sight, not reaching the ground
15 = Precipitation within sight, reaching the ground more than 5 km from the station
16 = Precipitation within sight, reaching the ground, near to but not at the station
17 = Thunderstorm, but no precipitation at the time of the observation
18 = Squalls at or within sight of the station at the time of the observation or during the preceding hour
19 = Funnel cloud(s) at or within sight of the station at the time of the observation or during the preceding hour

20 = Drizzle (not freezing) at the station during the preceding hour but not at the time of the observation
21 = Rain (not freezing) at the station during the preceding hour but not at the time of the observation
22 = Snow at the station during the preceding hour but not at the time of the observation
23 = Rain and snow or ice pellets at the station during the preceding hour but not at the time of the observation
24 = Freezing drizzle or freezing rain at the station during the preceding hour but not at the time of the observation
25 = Shower(s) of rain at the station during the preceding hour but not at the time of the observation
26 = Shower(s) of snow or rain and snow at the station during the preceding hour but not at the time of the observation
27 = Shower(s) of hail or rain and hail at the station during the preceding hour but not at the time of the observation
28 = Fog or ice fog at the station during the preceding hour but not at the time of the observation
29 = Thunderstorm, with or without precipitation at the station during the preceding hour but not at the time of the observation

30 = Slight or moderate duststorm or sandstorm has decreased during the preceding hour
31 = Slight or moderate duststorm or sandstorm with no appreciable change during the past hour
32 = Slight or moderate duststorm or sandstorm has begun or increased during the past hour
33 = Severe duststorm or sandstorm has decreased during the preceding hour
34 = Severe duststorm or sandstorm with no appreciable change during the past hour
35 = Severe duststorm or sandstorm has begun or increased during the past hour
36 = Slight or moderate drifting snow generally below eye level
37 = Heavy drifting snow generally below eye level
38 = Slight or moderate blowing snow generally above eye level
39 = Heavy blowing snow generally above eye level

40 = Fog or ice fog at a distance at the time of the observation, but not at the station during the preceding hour, the fog extending to a level above that of the observer.
41 = Fog or ice fog in patches
42 = Fog or ice fog, sky visible has become thinner during the past hour
43 = Fog or ice fog, sky invisible has become thinner during the past hour
44 = Fog or ice fog, sky visible no appreciable change during the past hour
45 = Fog or ice fog, sky invisible no appreciable change during the past hour
46 = Fog or ice fog, sky visible has begun or become thicker during the past hour
47 = Fog or ice fog, sky invisible has begun or become thicker during the past hour
48 = Fog, depositing rime, sky visible
49 = Fog depositing rime, sky invisible

50 = Drizzle, not freezing, intermittent slight at time of observation
51 = Drizzle, not freezing, continuous slight at time of observation
52 = Drizzle, not freezing, intermittent moderate at time of observation
53 = Drizzle, not freezing, continuous moderate at time of observation
54 = Drizzle, not freezing, intermittent heavy at time of observation
55 = Drizzle, not freezing, continuous heavy at time of observation
56 = Drizzle, freezing, slight
57 = Drizzle, freezing, moderate or heavy (dense)
58 = Drizzle and rain, slight
59 = Drizzle and rain, moderate or heavy

60 = Rain, not freezing, intermittent slight at time of observation
61 = Rain, not freezing, continuous slight at time of observation
62 = Rain, not freezing, intermittent moderate at time of observation
63 = Rain, not freezing, continuous moderate at time of observation
64 = Rain, not freezing, intermittent heavy at time of observation
65 = Rain, not freezing, continuous heavy at time of observation
66 = Rain, freezing, slight
67 = Rain, freezing, moderate or heavy
68 = Rain or drizzle and snow, slight
69 = Rain or drizzle and snow, moderate or heavy

70 = Intermittent fall of snowflakes slight at time of observation
71 = Continuous fall of snowflakes slight at time of observation
72 = Intermittent fall of snowflakes moderate at time of observation
73 = Continuous fall of snowflakes moderate at time of observation
74 = Intermittent fall of snowflakes heavy at time of observation
75 = Continuous fall of snowflakes heavy at time of observation
76 = Diamond dust (with or without fog)
77 = Snow grains (with or without fog)
78 = Isolated star-like snow crystals (with or without fog)
79 = Ice pellets

80 = Rain shower(s), slight
81 = Rain shower(s), moderate or heavy
82 = Rain shower(s), violent
83 = Shower(s) of rain and snow mixed, slight
84 = Shower(s) of rain and snow mixed, moderate or heavy
85 = Snow shower(s), slight
86 = Snow shower(s), moderate or heavy
87 = Shower(s) of snow pellets or small hail, with or without rain or rain and snow mixed, slight
88 = Shower(s) of snow pellets or small hail, with or without rain or rain and snow mixed, moderate or heavy
89 = Shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder, slight
90 = Shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder, moderate or heavy

91 = Slight rain at time of observation, thunderstorm during the past hour but not at time of observation
92 = Moderate or heavy rain at time of observation, thunderstorm during the past hour but not at time of observation
93 = Slight snow, or rain and snow mixed, or hail at time of observation, thunderstorm during the past hour but not at time of observation
94 = Moderate or heavy snow, or rain and snow mixed, or hail at time of observation, thunderstorm during the past hour but not at time of observation
95 = Thunderstorm, slight or moderate, without hail but with rain and or snow at time of observation
96 = Thunderstorm, slight or moderate, with hail at time of observation
97 = Thunderstorm, heavy, without hail but with rain and or snow at time of observation
98 = Thunderstorm combined with duststorm or sandstorm at time of observation
99 = Thunderstorm, heavy, with hail at time of observation

Hail includes large hail, small hail and snow pellets.

W1, W2 : Past weather (for 0900 and 1500 GMT observations, the period covered is 3 hours)

Code figures:

- 0 = Cloud covering half or less of the sky throughout the period
- 1 = Cloud covering more than half the sky during only part of the period
- 2 = Cloud covering more than half the sky throughout the period
- 3 = Sandstorm, duststorm or blowing snow
- 4 = Fog or ice fog or thick haze (visibility less than 1000 m)
- 5 = Drizzle
- 6 = Rain
- 7 = Snow or rain and snow mixed
- 8 = Shower(s)
- 9 = Thunderstorm(s) with or without precipitation

Nh : Amount of low cloud, or medium cloud if no low cloud present, okta

Cl : Type of low cloud

- 0 = No low cloud
- 1 = Cumulus with little vertical extent and seemingly flattened, or ragged Cumulus other than bad weather, or both
- 2 = Cumulus of moderate or strong vertical extent, either accompanied or not by other Cumulus or Stratocumulus all having their bases at the same level
- 3 = Cumulonimbus whose summits, at least partially, lack sharp outline, but are neither clearly fibrous (cirriform), nor in the form of an anvil; Cumulus, Stratocumulus or Stratus may also be present
- 4 = Stratocumulus formed by the spreading out of Cumulus; Cumulus may also be present
- 6 = Stratus in a more or less continuous sheet or layer, or ragged shreds, or both, but no Stratus fractus of bad weather
- 7 = Stratus fractus of bad weather or Cumulus fractus of bad weather or both (pannus), usually below Altostratus or Nimbostratus
- 8 = Cumulus and Stratocumulus other than that formed by the spreading out of Cumulus, the bases of the Cumulus and Stratocumulus are not at the same level.
- 9 = Cumulonimbus, the upper part of which is clearly fibrous (cirriform), often in the form of an anvil, either accompanied or not by any other type(s) of low cloud
- / = Types of low cloud invisible due to darkness, fog, blowing dust or sand or other similar phenomena.

'Bad weather' denotes the conditions which generally exist during precipitation and a short time before and after.

Cm : Type of medium cloud.

- 0 = No medium cloud.
- 1 = Altostratus, the greater part of which is semi-transparent; through this part the sun or moon may be weakly visible, as through ground glass
- 2 = Altostratus, the greater part of which is sufficiently dense to hide the sun or moon, or Nimbostratus
- 3 = Altocumulus, the greater part of which is semi-transparent; the various elements of the cloud change only slowly and are all at a single level
- 4 = Altocumulus in patches (often in the form of almonds or fishes), the greater part of which is semi-transparent ; the clouds occur at one or more levels and the elements are continually changing in appearance
- 5 = Altocumulus in bands semi-transparent, of Altocumulus in one or more fairly continuous layers (semi-transparent or opaque), progressively invading the sky; these Altocumulus clouds generally thicken as a whole
- 6 = Altocumulus resulting from the spreading out of Cumulus (or Cumulonimbus)
- 7 = Altocumulus in two or more layers, usually opaque in places, and not progressively invading the sky; or opaque layer of Altocumulus not progressively invading the sky; or Altocumulus together with Altostratus or Nimbostratus
- 8 = Altocumulus with sproutings in the form of small towers or battlements, or Altocumulus having the appearance of cumuliform tufts
- 9 = Altocumulus of a chaotic sky, generally at several levels
- / = Types of medium cloud invisible owing to darkness, fog, blowing dust or sand or other similar phenomena, or more often because of the presence of a continuous layer of lower clouds.

Ch : Type of high cloud

0 = No high cloud

1 = Cirrus in the form of filaments, strands or hooks, not progressively invading the sky.

2 = Dense cirrus, in patches or entangled sheaves, which usually do not increase and sometimes seem to be the remains of the upper part of a Cumulonimbus; or Cirrus with sproutings in the form of small turrets or battlements, or Cirrus having the appearance of cumuliform tufts

3 = Dense Cirrus, often in the form of an anvil, being the remains of the upper part of Cumulonimbus, or where the rest of the Cumulonimbus is below the horizon

4 = Cirrus in the form of hooks or filaments, or both, progressively invading the sky; they generally become denser as a whole

5 = Cirrus (often in bands converging towards one or two opposite points on the horizon) and Cirrostratus, or Cirrostratus alone; in either case they are progressively invading the sky, and generally growing denser as a whole, but the continuous veil does not reach 45 degrees above the horizon.

6 = Cirrus (often in bands converging towards one or two opposite points on the horizon) and Cirrostratus, or Cirrostratus alone; in either case they are progressively invading the sky, and generally growing denser as a whole; the continuous veil extends more than 45 degrees above the horizon, without the sky being totally covered

7 = Veil of Cirrostratus covering the celestial dome.

8 = Cirrostratus not progressively invading the sky and not completely covering the celestial dome

9 = Cirrocumulus alone, or accompanied by Cirrus or Cirrostratus, or both, but Cirrocumulus is predominant.

/ = Types of high cloud invisible owing to darkness, fog, blowing dust or sand or other similar phenomena, or more often because of the presence of a continuous layer of lower clouds.

8 Groups

N = Amount of cloud reported by C, okta.

C = Type of cloud

0 = Cirrus (Ci)

1 = Cirrocumulus (Cc)

2 = Cirrostratus (Cs)

3 = Altocumulus (Ac)

4 = Altostratus (As)

5 = Nimbostratus (Ns)

6 = Stratocumulus (Sc)

7 = Stratus (St)

8 = Cumulus (Cu)

9 = Cumulonimbus (Cb)

/ = Cloud type not visible owing to darkness, fog, duststorm, or other analogous phenomena.

hshs = Height of cloud above station level reported by type C

00 to 50 = Height in hundreds of feet

51 to 55 Not used

56 to 80 = Subtract 50 to obtain cloud height in thousands of feet

81 to 88 = Height of cloud between 35000 and 70000 ft in 5000 ft steps.